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SERBIAN SME'S STILL REPRESENT A POTENTIAL FOR OVERALL ECONOMIC DEVELOPMENT

Prof. Miroljub Hadžic, PhD
University Singidunum, Belgrade, Serbia
mhadzic@singidunum.ac.rs
Prof. Branka Paunovic, PhD
School of Business, Novi Sad, Serbia
brankabranka1711@gmail.com

ABSTRACT

Although late, economic development of Serbia prior to the Global economic crisis was relatively fast, comparing to other transitory economies. Small and medium scale enterprises (SMEs) had also fast growth and become important economic subject. The Global economic crisis has negatively influenced the national economy from late 2009, including SMEs. Those companies and shops are on the low level of international competitiveness, as a consequence of process of de – industrialization and slow process of restructuring. In order to get better look into labor productivity driving forces an analysis was performed through regression framework, while the analyses, performed for EU countries was used as a benchmark. Those results pointed that labor productivity growth of Serbian SMEs during recession years was results of decreasing employment and not from expansion. It also pointed that export growth and investments growth are important for increase in labor productivity. Improving labor productivity is essentially important for increasing international competitiveness of Serbian SMEs. It is very complex issue from analytical point of view and improvement in data basis and analytical methodology would be useful, especially for decision makers and policy makers also.

Keywords: *transition, SME, growth, development, competitiveness, productivity*

1. INTRODUCTION

Serbia has started transition toward market economy, after political changes in 2000, as the last among countries of Central and Eastern Europe. Although late, economic development prior to the Global economic crisis was relatively fast, comparing to other transitory economies. Small and medium scale enterprises (SMEs) had also fast growth and become important economic subject. Those companies were important as a vehicle to absorb surpluses of workforce from so - called socially - owned companies, now in restructuring. They are also vital for sustainable development of the national economy, as they operate under so - called hard budget constraint [Kornai, 1992], so those companies are more efficient and more flexible than large companies.

The Global economic crisis has negatively influenced Serbian economy from late 2009, including SMEs. In meantime micro and small scale companies seem started to recover or simply changed their businesses in order to survive. In 2013 and 2014 business demography was negative, which pointed out that for the first time during the transition process more companies were closed during the year than newly established. Fortunately, there are signs of modest recovery from 2015 due to data on business demography. At the same time fast growing companies and gazelles during the current crisis did not suffer so much, or in other words, they were better adapted to worsened economic conditions.

The Government support to SME development until 2012 was of more general sort, with an aim to create critical number of efficient economic subjects. Concluded that the first phase of Small and Meduim Enterprises and Entrepreneurship (SMEE) development was over, measures for SMEs support from 2012 on became more specific and oriented mainly to support fast growing companies and gazelles. It seems that now is important to emphasize instead, rather a mix of supportive measures, general and specific, as well, in order to 1) speed up employment; 2) support positive business demography and 3) strengthen SME sector and create self-sustained one.

The aim of the paper is threefold: a) to analyze SME development during the transition period, before and during the crisis, b) to compare Serbian SME development level and characteristics of those companies with transitory countries and EU members, from quantitative and especially from qualitative point of view, using, among others, a regression analysis, which measures influence of capital, export and labor to overall output for different industries and companies including different sort of SME and c) to argue for shift in SME supportive policy on the basis of those findings.

2. COMPETITIVENESS

Serbia is still among the least competitive European economies, according to the World Economic Forum (the 94th and 95th position respectively, as can be seen in Table 1) [World Economic Forum, 2016]. Serbia belongs to so-called efficiency driven economies, together with 28 other countries, among others those from the Region: Albania, B&H, Bulgaria, FYROM, Montenegro, and Romania. These economies strive to develop more efficient production processes and quality products. The main factors inducing their low competiveness are slow modernization and restructuring [Hadžić, Zeković, 2013]. Investment in education is among major factors in boosting the competitiveness. The recession slows down the speed of market reforms in economy, but one can expect that due to changing business conditions economic subjects should find additional market space and additional resources for the innovation of products or processes [Finger, Kreiner, 1979]. However, a weak SME sector in Serbia failed to adapt perfectly to a worsened environment.

Table 1 Competitiveness Index

	Ranking		Index	
	2015-16	2011-12	2015-16	2011-12
Serbia	94	95	3,9	3,9
Albania	97	78	3,8	4,1
Bulgaria	54	74	4,4	4,2
FYROM	63	79	4,3	4,1
Montenegro	67	60	4,2	4,3
Romania	59	77	4,3	4,1

Source: World Economic Forum – Global Competitiveness Index 2015/2016

Investment into fixed assests is essential for structural changes, economic development, and the creation of a competitive economic structure. The main characteristic of investments in Serbian SMEs is a decreasing trend of investments into fixed assets and low level of investment efficiency. Investments are still on the low level, and more important, lower than in the pre – crisis period. Total investments were 47% lower in 2015 than in comparison to 2008 (2,5 billion € in comparison to 3,6 billion €, respectively), among which micro and small companies were mainly affected (46% and 48% less, repsectivelly), sole entreprenurs (-12%) and the least affeceted were medium companies (-9%) [Ministry of Economy, The Government of Serbia, 2017]. The general ratio between investments and gross value added[1] (GVA) for SMEs was decreasing during recession and reached 27% of GVA only [Ministry of Economy, The Gov-

[1] Gross Value Added (GVA) – the measure of goods and services produced in a company, industry or sector.

ernment of Serbia, 2017]. In order to be efficient and competitive abroad, an economy has to raise investment efficiency. The marginal capital coefficient[2] has been decreasing over the past few years, which means that for each percent of GVA increase ever more sources are invested [Hadžić, Pavlović, 2018]. This finding is to be taken into account when thinking about the support for and development of SMEs, generaly and especially for fast growing one [USAID, 2015]. The point is to open room for micro finance institutions, saving organizations and saving credit cooperatives, busines angels, guarantee shemes, venture capital suppliers [EBRD, 2014] .

3. INNOVATION

Fast development of information–communication technologies (IT) for the past several decades has been the main driver of dramatic changes in the business and the human life [Djordjević G., 2012]. According to use of Internet Serbian SMEs are near but below EU average and comparing to other countries within the Region leg behind Slovenia and Croatia. The use of Internet by SMEs is at the EU average (Table 2), just like in other adjacent countries. However, majority of companies use the Internet with the DLS access (77%), cable access (37%), while a few use mobile 3G access (19%) [Ministry of Economy, The Government of Serbia, 2017].

Table 2 Internet Use and Type of Internet Access, 2016

	Use	Cable	DLS	Mobile
EU	99	37	83	59
Bulgaria	98	45	62	32
Hungary	98	48	73	45
Romania	98	44	41	27
Slovenia	100	49	83	69
Croatia	99	32	84	49
Serbia	98	37	77	19

Source: Ministry of Economy, The Government of Serbia, 2017, Data – EUROSTAT and Statistical Office RS

The use of Internet business services, like e – business, e – trade, e- payment, b2b connection, e – government, e – marketing, use of web cite is on the modest level. It is important negative factor for competitiveness and innovation capabilities of SMEs. As can be seen from Table3 the share of SMEs in total number of companies received orders using WEB cites was relatively high, but nfortunately not using SMS orders

[2] Marginal Capital Coefficient – the expected rate of return of an invstment.

Table 3 Development of e – commerce, 2015

	% of companies received WEB orders			% of companies received SMS orders		
	Small	Medium	SME	Small	Medium	SME
EU	12	17	15	5	12	9
BG	6	6	6	1	4	3
CRO	25	26	26	7	11	9
HU	9	10	10	2	7	5
RO	4	6	5	2	3	3
SLO	12	14	13	3	8	6
FIROM	5	5	5	1	2	2
SRB	18	28	23	2	6	4

Source: EUROSTAT, Statistical Office RS

Innovation Union Scoreboard is a tool of the EC for estimating and making comparative analyses of innovation performances [EC, 2016]. It comprises of 3 main groups of indicators (indicators of political support, indicators of performances of economic subjects, and indicators of effects of innovation activities) and 8 innovation dimensions, all in all 25 different indicators.

Serbia belongs to the third group of countries – moderate innovators, with performances below average. In 2015 (as the last year estimated) Serbia was well below the Summary Innovation Index (SII) – the EU-27 average composite innovation index (0.544 and 0.365, respectively) [EC, 2016].

As for the Summary Innovation Index (SII), Serbia is by 1/3 below the EU average (at 67.1 if the EU-27 average is taken as 100). If we look at innovation performance scores per dimension, Serbia is well-ranked for Finance and support, and Innovators (levels 96.2 and 92.8, respectively). In comparison to the EU average, the poorest results were recorded for Intellectual assets and somewhat better ones for the Research system (only 3.1 and 46.7, respectively) [EC, 2016].

4. LABOR PRODUCTIVITY AS A DRIVER OF SME GROWTH

The contribution of SME to economic growth is dependent on their labor productivity, which, in turn, is reliant on other variables. In the EU Report on SME development [ECORYS, EC, 2017] it was investigated these driving factors behind SME performances, including the relationship between the high and medium – tech manufacturing sectors and knowledge – intensive services and SME labor productivity, through regression analysis. The key advantage of this approach is that one can control a variety of factors simultaneously.

The starting point of the analysis is a production function of the type Y=A f (K,L), where Y is output, K is capital, L is labor, and A is Total Factor Productivity. If a standard Cobb-Douglas production technology is chosen, one can rewrite the production function to:

(1) log (Y/L) = log (A)- ·log (n+g+ ·) + ·log (s)

Y/L denotes labor productivity, n - employment growth, g - the rate of technological progress, c - the capital depreciation rate, s - investment rate (investments as percentage of value added), and · are coefficients. This equation shows how labor productivity depends on employment growth and accumulation of capital. The production function is expressed in logarithms (log). This is theoretical framework, which was implemented. The results suggested that labor productivity, whether measured by country, sector, size class or year, is determined mainly by employment growth, the export rate and investments rate.

In order to investigate the contribution of SME to Serbian economic growth certain limits for the research were found. Firstly: There is the lack of data regarding SME sector. In line with special attention to SME development, collecting data on the level of SME (including all sorts of them, from micro, small to medium scale companies and shops) has started from 2009 on. Completed data for all variables considered: GVA (gross value added), I (investments), X (export) and E (employment) are available for the period 2006 -2016, only. Unfortunately, for investments data are late, which means that the last one are available for 2015. It means that the period which can be investigated is 2006-2015. Secondly, within Republican Statistical Office there were no data available for SME sector according to their technological level, neither for manufacturing SME, nor SME in service. So, it is not possible to examine labor productivity from the point of view of different technological level of SME in manufacturing and services. The calculations of real value added growth, the employment growth, export rate and investments rate were as follows:

- real value added growth = (real VA growth – real VA growth (ti1))/real VA growth (t-1)*100,
- employment growth = (employment – employment (t-1)/employment (t-1)*100,
- export rate = (exports of goods and services /GDP)*100

The EU Report investigated the production function and productivity relation during the crisis period only. All in all, the research was limited to the period 2013-2016 and limited to different SME according to their size only (SME were differentiated according to their size: micro, small and medium).The results suggest that labor productivity, whether measured by country, sector, size class or year, is determined mainly by employment growth, the export rate and investments rate (Table 4).

Firstly, as can be seen, an increase in the investments rate by 1 percent is associated with an increase in labor productivity of about 0,14 percent (model 1). The coefficient for employment growth is negative, because employment growth leads to lower capital per worker for given levels of investments in the capital stock, and hence to lower labor productivity.

Secondly, the sector dummies (included in model 2) show that KIS sector (KIS – knowledge intensive services) and the HMHTM sectors (HMHTM – high + medium high - tech sectors) witness higher labor productivity. HMHTM sectors are 24 percent more productive than other sectors and KIS sectors are 29 percent more productive.

Thirdly, size of SMEs also influenced performance (model 3). All SME categories (micro, small, medium) experience lower labor productivity levels compared to large companies in the same sector and country (which form the benchmark in regression, so they are omitted in the model). The difference is the largest for micro companies, around 50% lower productivity than large one.

Table 4 Labor productivity of SMEs, EU Member States 2014 – 2016

	(1)	(2)	(3)
log investments rate	0,1425	0,1828	0,1730
	(0,0070)	(0,0071)	(0,068)
log (n+g+·)	-0,0211	-0,0297	-0,316
	(0,0072)	(0,0071)	(0,0069)
Log export rate	0,5532	0,5702	0,6980
	(0,0769)	0,0757)	(0,0731)
Micro firms			-0,5241
			(0,0153)
Small firms			-0,2669
			(0,0150)
Medium firms			-0,1113
			(0,0149)

Source: ECORYS, 2017

The results for Serbian SME were compared to results for SME EU member states. Results are very interesting and informative (Table 5), although somewhat deficient regarding the period covered and regarding technological level of certain sector, as it was explained earlier.

Table 5 Labor productivity of SMEs Serbia 2013 -2016

	GVA = Investments + Employment + Export
SME	0,5+1,12I-0,06E+0,77X
Micro	0,7+4,6I-0,4E-12X
Small	0,2+1,5I-0,03E+4,13X
Medium	0,9+0,18I+0,03E-8,47X
Large	0,1+0,32I+0,11E+6,84X
Total	0,2+1,58I+0,00E+8,57X

Source: Computation by the authors based on data from Statistical Office RS

For all sort of enterprises labor productivity is determined mainly by export rate (coefficient 0,77) and investment rate (coefficient 1,12), while employment has no influence (coefficient 0,06). If compare SME sector as a whole and large companies, labor productivity within large companies was mainly determined by export growth (coefficient 6,84), while investments and employment growth were low influential (0,32 and 0,11, respectively). At the same time labor productivity for SME was mainly induced by investments growth, les by export growth and low induced by employment growth. For micro and small companies results of regression analysis are similar and suggest that labor productivity is determined by export growth and investments growth, but low influenced by employment rate. One can see that results for medium scale companies are different and suggest low influence of investments growth (coefficient 0,18) and employment growth to labor productivity (coefficient 0,03) and, surprisingly, negative influence of export growth (coefficient -8,47).

5. CONCLUSIONS

SMEs sector in Serbia experienced very fast development prior to the global economic crisis, when started to suffer. It is still underdeveloped and not self – sustained, which means that different sort of supportive measures from all level of the state are necessary and have to be strengthened in order to overcome recession.

Those companies and shops are on low level of international competitiveness, as a consequence of process of de – industrialization and slow process of restructuring. Investments were decreasing during the recent years, with decreasing investments efficiency. Cost competitiveness also started to deteriorate during the crisis and Serbia unfortunately is among countries with increasing labor costs. Export competitiveness of Serbian SME was improving prior to the crisis, but one has to bear in mind that structure of export is not favorable, as main export products are raw materials and semi products. Export is depending

a lot from demand in EU, which faced with repeated recession. Serbian SMEs are relatively well position if one look at use of PCs and internet access, although a type of internet connection is somewhat not of high quality one,

In order to get better look into labor productivity driving forces the analysis was performed through a regression framework. The analysis performed for EU countries was used as a benchmark. Those results pointed that labor productivity growth of Serbian SMEs during recession years was results of decreasing employment and not from expansion. It also pointed that export growth and investments growth are important for increase in labor productivity. Improving labor productivity is essentially important for increasing international competitiveness of Serbian SMEs. It is very complex issue from analytical point of view and improvement in data basis and analytical methodology would be useful, especially for decision makers and policy makers also.

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